## PROPOSED VALIDATION UNDER THE PLENARY POWERS OF "FISTULIPORA" McCOY, 1849 (CLASS BRYOZOA, ORDER CYCLOSTOMATA, FAMILY FISTULIPORIDAE)

## By HELEN DUNCAN

(United States Geological Survey, Washington, D.C.)

## ALFRED R. LOEBLICH, Jr.

(United States National Museum, Washington, D.C.)

and

## RAYMOND C. MOORE

(University of Kansas, Lawrence, Kansas)

(Commission's reference: Z.N.(S.) 324)

An unfortunate state of nomenclatural confusion has resulted from the recent discovery that the name *Fistulipora* McCoy, 1849, widely applied for nearly a century to a genus of the Paleozoic Bryozoa, is preoccupied by *Fistulipora* Rafinesque, 1831, an indeterminate fossil.

- 2. McCoy (1849, Ann. Mag. nat. Hist. (2) 3: 130—131) defined Fistulipora and described two species, F. minor and F. major. In 1850 Milne Edwards (H.) and Haime (Monogr. Brit. Fossil Corals: lix) selected Fistulipora minor McCoy, 1849, as type species of the genus. Subsequently scores of species from America, Europe, Asia, and Australia have been described under or referred to McCoy's genus. Fistulipora McCoy is well established in an extensive literature as one of the most long-ranging and important genera of Paleozoic Bryozoa. The family fistuliporadae Ulrich (1882, J. Cincinn. Soc. nat. Hist. 5: 156) derived its name from McCoy's genus, and genera included in the family as well as their most characteristic structural features are commonly designated "fistuliporoid".
- 3. The fact that Fistulipora McCoy is preoccupied was apparently first discovered by Lang, Smith, and Thomas (1940, Index of Paleozoic Coral Genera: 61), who furnished the information to Neave for inclusion in the Supplement to the Nomenclator Zoologicus (4:736), published in 1940.
- 4. In an obscure 8-page pamphlet entitled Enumeration and Account of Some Remarkable Natural Objects of the Cabinet of Prof. Rafinesque, in Philadelphia; Being Animals, Shells, Plants, and Fossils, collected by him in North

America, between 1816 and 1831, Philadelphia, 1831, Rafinesque published on page 5 the following brief characterisation of his monotypic genus:—

FISTULIPORA, Raf. Differ [sic] from Millepora by being tubular. 1. F. teres. Cylindrical, nearly simple, smooth, pores round, nearly equal. Limestone of Kentucky.

Rafinesque classed this fossil in a group termed "Polypites or Erismites", but it is impossible to tell whether Fistulipora teres Rafinesque, 1831, referred to a coral, hydrocoralline, sponge, bryozoan, or to some other organism. It is highly improbable that the type specimen of the species was preserved or could be identified as such even if the specimen still exists. Biographers (1895, Call, Life and Writings of Rafinesque: 59—60; 1911, Fitzpatrick, Rafinesque, a Sketch of his Life with Bibliography: 43, 56) report that at the time of Rafinesque's death his collections had suffered much from neglect and his inability properly to care for them and that most of the mineral and conchologic materials were entirely without labels and were sold for mere trifles. Further, information on the locality and geologic formation is indeterminate, although it might be assumed that F. teres came from the "Limestone of Blue licks in Kentucky", the locality specified for the immediately preceding species Milleporites verrucosa Raf., known to be in an area of Ordovician rocks.

- 5. It seems doubtful whether Rafinesque's Enumeration should be considered adequate publication. It was apparently privately printed and, inasmuch as no price is indicated on the tract, probably was not offered for sale. Very few copies are known to have been preserved. Actually the "tract" purports to be little more than a list of specimens for sale, as is indicated by the author's statement in the introductory paragraph that "they have been conveyed at great expense to this City, and will soon be sent to Europe for sale, unless disposed of in the United States". It would be difficult, if not impossible, however, to demonstrate that this pamphlet should not be recognised as a bona fide publication inasmuch as other books and articles published at about the same time or earlier seem to belong in about the same category but nevertheless are considered to be validly published.
- **6.** It cannot be disputed, however, that Rafinesque's *Fistulipora* is unrecognisable from the description, and as no illustrations were provided, the organism cannot be identified. The possibility of the labelled specimen or specimens of the type species *Fistulipora teres* being recovered is extremely remote. For all practical purposes, therefore, the name *Fistulipora* Rafinesque, 1831, for an organism of indeterminate zoological relationship, has no meaning.
- 7. On the other hand, Fistulipora McCoy, 1849, is by far the best known and most prolific of the genera that have been included in the family FISTULIPORIDAE. The suggestion (1944, Moore and Dudley, Bull. Kans. geol. Surv.

52:254—255) that the name Cyclotrypa Ulrich, 1896 (Zittel, Text-Book Palaeont. (Engl. ed.) 1, pt. 1:269) (genotype: Fistulipora communis Ulrich, 1890, Geol. Surv. Illinois 8:476) "may contain a majority of the bryozoans that formerly have been placed in Fistulipora", does not satisfy zoological requirements, for Cyclotrypa communis (Ulrich, 1890), has structural features differing from those of Fistulipora minor McCoy and many allied species. Numerous species that have been referred to Fistulipora McCoy probably will be assigned to other genera when restudied. Cyclotrypa does not constitute a a suitable repository for "typical species" of Fistulipora McCoy. Certainly the name Fistulipora Rafinesque, 1831, can find no practical application in paleontology, and its retention would produce a highly undesirable instability in bryozoan nomenclature.

- 8. The International Commission is accordingly asked:-
- (1) to use its Plenary Powers to suppress the under-mentioned generic name for the purposes both of the Law of Priority and for those of the Law of Homonymy:—Fistulipora Rafinesque, 1831;
- (2) to place the under-mentioned generic name on the Official List of Generic Names in Zoology:—Fistulipora McCoy, 1849 (gender: feminine) (type species, by selection by Milne Edwards (H.) & Haime (1850): Fistulipora minor McCoy, 1849);
- (3) to place the under-mentioned specific name on the Official List of Specific Names in Zoology:—minor McCoy, 1849, as published in the combination Fistulipora minor (specific name of type species of Fistulipora McCoy, 1849);
- (4) to place the under-mentioned generic name on the Official Index of Rejected and Invalid Generic Names in Zoology:—Fistulipora Rafinesque, 1831, as suppressed under the Plenary Powers under (1) above;
- (5) to place the family-group name FISTULIPORIDAE Ulrich, 1882 (type genus: Fistulipora McCoy, 1849) on the Official List of Family-Group Names in Zoology.